Tara Prasad

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CS3300 – Tue/Thur (9:25am)

Prof. Armin Moin

TA Himon Thakur

Software and System Requirements Specifications

1. Accuracy
   1. The key is precise adjustments
   2. The code could function, but it wouldn’t meet the “accuracy” requirements because the code could finish running with no errors but still output unreasonable or unfeasible outcomes, such as horsepower quantities that the engine isn’t even capable of producing, let alone withstanding.
2. Reliability
   1. The code cannot break.
   2. This is different than accuracy, in which we discuss the numbers that are outputted should be accurate. In this, we say that the numbers must be outputted no matter the accuracy because this isn’t where we evaluate accuracy.
   3. We don’t want any errors, - problems in running the program, exception errors or bounds error, etc.
   4. The code must run from start to finish as expected, - the same, every single time.
3. Maintainability
   1. Must be well documented and easy to maintain. This should be clearly documented and defined. We should be able to iterate or build on this at any time.
4. Simulated fuel injection adjustment
   1. There is precise adjustment of fuel delivery to match engine load
5. Engine parameter logging
   1. We will log engine parameters like RPM, temperature, and pressures
6. UI
   1. An interface for inputting commands, visualizing data, and configuring settings
7. Parameter definition
   1. There are defined and customized engine parameters
8. Performance
   1. Must respond accurately to user inputs and update parameters